# THREE NEW SPECIES OF EXPTOCHIOMERA FROM THE UNITED STATES (HEMIP-TERA-LYGAEIDæ) 

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## Exptochiomera intercisa new species

Color pale castaneous, subshining; apex of scutellum, narrow costal margin anteriorly, inner field of the corium longitudinally, and preapical fascia stramineous; posterior lobe of pronotum obscurely testaceous and provided with three obscure, broad, castaneous bands; basal and terminal segments of antenna castaneous, second and third segments and legs testaceous, femora preapically and tibia basally somewhat infuscated; membrane sordid white with several elongate brownish spots at base and apex. Beneath castaneous; pleura subshining; venter dull.

Head as long as wide, rather closely punctate, sparsely covered with fine incumbent hairs, eyes rather large; preocular lateral margins of head slightly diverging, rather long, one-third shorter than length of eye; ocelli twice as far apart as each is remote from eyes. Antenna finely pilose; the long incrassate basal segment exceeding apex of head by one-half its length; second segment about one-third longer than first, third one-half the length of second, and the fusiform fourth a little longer than basal; relative length of segments in millimeters as follows: I-.44, II-.64, III-.50, IV-.56. Rostrum long, reaching to the posterior coxæ, basal segment one-fourth longer than basal segment of antenna, second segment equally as long, third a little shorter than second. Pronotum almost one-third wider than long; anterior lobe about two and one-half times longer and much narrower than posterior lobe; lateral margin rather strongly constricted between the lobes, as viewed laterally this constriction not evident dorsally; anterior lobe more closely and finely punctate, sparsely covered with pale incumbent hairs; lateral margins in dorsal view gently rounded and converging anteriorly; anterior submargin somewhat depressed; posterior lobe very coarsely but not confluently punctate; humeral angles smooth, obtusely rounded; posterior margin before the scutellum gently concavely arcuate. Scutellum scarcely longer than wide, provided with a very distinct $Y$-shaped, smooth, calloused carina, coarsely punctate along the submargins; depressed disk, within the arms of the carina, more sparsely and finely punctate. Hemielytra with the clavus provided with three regular, parallel rows of punctures; corium with two parallel rows of coarse punctures along the claval suture; elsewhere except along the costal margin and on the somewhat


Figl.E.intercisa n.sp.
elevated mid-vein rather coarsely but sparsely punctate. Pro- and mesopleura rather closely and coarsely punctate; metapleurum more sparsely punctate. Incrassate fore femora armed below with a double series of spines, each with three distinct short spines, longer in the male, the longest pair near the middle, the other two pairs placed almost as equidistant from each other as the preapical one is remote from apex. Anterior tibia of the male, one-fourth the way from apex, armed with a stout, inclined spine which is nearly as long as diameter of that part of tibia contiguous to spine, the inner face provided with a row of minute serrations in both sexes. Basal segment of posterior tarsus a little shorter than second and
third segments united. Venter impunctate, very finely rugulose and provided with a few short, inclined seta-like hairs arranged in transverse rows; lateral opaque glandular spots each furnished with a long delicate hair. Length 4.4 mm .

Type male: U. S. N. M. No. 43851, Cayamas, Cuba (E. A. Schwarz). Paratype female: U. S. N. M. No. 43851, 'Florida"' (Uhler collection labeled Ligyrocoris intercisus Uhler).

I have adopted Uhler's MS. name for this species. It is one of the largest members of the genus, being fully as large as $E$. minima (Guer.) but is readily distinguished from that species by the characters given in the key. In the figure of the species the femora are drawn a little too much extended beyond the body.

## Exptochiomera arizonensis new species

The fully colored type is dark castaneous, somewhat shining; humeral angles, apex of scutellum, clavus between the rows of punctures, corium with veins, costal margin before the middle, preapical fascia, and a small spot near inner apical angle pale stramineous; antennæ embrowned, basal segment a little darker; legs testaceous with the femora apically, faintly tinged with brown. Beneath dark castaneous, margins of acetabula obscurely, outer apical angle of metapleurum and central disk testaceous. In less deeply colored specimens the head, pronotum, and ventral parts more ferrugineous; corium less deeply castaneous. Membrane lacteous-hyaline, embrowned at inner basal angle.

Head but little wider than long (9:8); apex reaching a little beyond middle point of basal segment of antenna; impunctate, faintly, finely granulose; preocular lateral margins of head about two-thirds as long as length of eye, parallel to each other ; ocelli set close to eyes, 6-7 times as far apart as each is removed from eyes; antennae with second segment twice as long as basal one; third about one-third shorter than second and nearly one-third shorter than fourth; relative length of segments in millimeters as follows: I-.32, II-.64, III-.44, IV-.60. Rostrum with apex extending to a point just behind middle coxae; basal segment but slightly shorter than second and distinctly longer than basal segment of antennae; third segment one-third shorter than second. Pronotum three-sevenths wider than long; anterior lobe two-fifths longer than posterior one; lateral margin more gently arcuately contracted between the lobes than in the preceding species; anterior submargin somewhat depressed, closely punctate; lateral submargins of anterior lobe and all of the posterior lobe except the smooth humeral angles coarsely and closely punctate ; central disk of anterior lobe finely and sparsely punctate. Scutellum about as long as wide with a distinct Y-shaped, smooth, calloused carina, coarsely punctate along the submargins; the de-


Fig.2. E. arizonensis n.sp.
pressed central disk more sparsely, finely punctate. Hemielytra with the clavus provided with three regular parallel rows of punctures; corium with two rows of punctures paralleling the claval suture, elsewhere, except on costal margin and veins, finely and sparsely punctate. Prosternum anteriorly and propleurum posteriorly coarsely, closely punctate; meso- and metapleura very sparsely punctate. Venter impunctate; each lateral opaque glandular spot provided with a long, fine hair. Incrassate anterior femora armed with a single series of four short spines, one near the middle, the other three nearer apex equidistant; anterior tibia mutic; basal segment of posterior tarsus distinctly longer than second and third united. Length 3.6 mm .

Type female: U. S. N. M. No. 43852, Tucson, Ariz., May 31, 1924 (A. A. Nichol). Paratypes males: 2 same data as type; 1 Deming N. Mex., July 12, 1917 (Trap light, H. H. Knight) ;
females : 2 Tucson, Ariz., May 31, 1924 (A. A. Nichol) ; 1 Tucson, July 20 (E. A. Schwarz) ; 1 Tucson, Ariz. (Coll. of H. G. Barber). Type and paratypes in the U. S. National Museum and paratypes in the collection of Prof. H. H. Knight and the author.

This species is readily distinguished from most of the species of the genus by the absence of the tibial spine in the male and the single series of femoral spines. From fuscicornis (Stål), to which it is most closely related ; it may be separated by the difference in color, the relatively shorter second segment of the antennæ, shorter head, etc.

## Exptochiomera nana new species



## Fiq. 3 E.nanan.sp.

Head, pronotum in part, basal half of scutellum, and inner field of corium ferrugineo-fuscous; humeral angles and middle fascia of posterior lobe of pronotum, apical half of scutellum, hemielytra with lines of punctures on clavus and corium, spot just behind middle of costal margin, and apical angles ferrugineo-castaneous; lateral spot on posterior lobe of pronotum before the humeral angles, clavus, and corium between the veins stramineous; antennae and legs [in part missing] pale testaceous; beneath ferrugineous with central disk of venter somewhat paler. The unique specimen may not be fully colored.
Head one-sixth wider than long, obscurely, finely punctate, and very finely rugulose; preocular lateral margins of head one-fourth shorter than length of an eye; ocelli about four times as far apart as each is remote from eyes; eyes sparsely pilose. Antennae with basal segment short, but little exceeding apex of tylus; second segment two-fifths longer than first and but little longer than third; fourth missing. Rostrum with apex reaching to middle coxæ, first segment not reaching to base of head; second a little longer than basal; third a little shorter than second. Pronotum nearly twice as wide as long ( $20: 11$ ); anterior lobe with lateral margins lightly impressed, nearly one-third longer than posterior lobe (7:5) ; a faint transverse line separates the two lobes, laterally the constriction between the lobes is gently, concavely sinuate; anterior lobe in front and laterally rather closely and coarsely, the posterior lobe more sparsely, punctate; disk of anterior lobe with a few scattered fine punctures; humeral angles smooth. Scutellum very nearly as long as wide (11:12) ; closely punctate on basal disk; apically, transversely rugose and sparsely punctate between the rugae; two upper
arms of the Y -shaped carina nearly bisecting the basal angles, the lower arm obsolete. Hemielytra with clavus provided with three parallel rows of punctures; corium with two inner parallel rows of punctures placed next to the claval suture; two other broken series of punctures on the central field of the disk; the costal area set off by a row of parallel punctures. Membrane luteous-hyaline. Prosternum and propleurum auteriorly sparsely punctate; the latter smooth behind the constriction; meso- and metapleura sparsely punctate. Incrassate fore femora armed beneath with a single row of 14 uniform, minute, close set spines, beginning one-third way from base; anterior tibiæ missing; basal segment of posterior tarsus somewhat longer than the other two segments united. Length 2.56 mm .

Type male: U. S. N. M. No. 43853, Framingham, Mass., Dec. 1913 (Collected by C. A. Frost).

This unique specimen was received for determination from Dr. Walther Horn, Director of the Deutsches Entomologisches Inst. Kaiser Wilhelm-Gesellschaft, who has kindly presented it for deposit in the National Museum. It was collected by C. A. Frost in sifting at Framingham, Mass. I have hesitated to describe this from a single imperfect specimen but it is so distinct from any other species of this genus that I have decided to include it. The small size, peculiar armature of the fore femora, and the short basal segment of the antennæ are distinctive characters.

## Key to U. S. Species of Exptochiomera

1. Anterior femora armed beneath with a single series of 14 or 15 minute uniform spines. Basal segment of antennæ scarcely exceeding apex of head. Small species, 2.56 mm .-(Mass.)
nana $n$. sp.
-. Anterior femora armed beneath with a single or double series of three or four usually unequal spines. Basal segment of antennæ much exceeding apex of head. 2.
2. Fore tibiæ of male straight, mutic ; head and pronotum nude, subshining ; pronotum dorsally not strongly constricted between the two lobes; fore femora armed below with a single series of three or four spines........... 3.
-. Fore tibiæ of male more or less curved and armed with a preapical spine ; head and pronotum either tomentose or sericeous; pronotum dorsally rather strongly contracted between the two lobes; anterior femora armed below with a double series of three or four spines.
3. 
4. Fore femora armed with a row of three short spines; second segment of antennæ twice as long as third; head and pronotum each one-third wider than long; humeral angles concolorous-(Tex., Ariz.).
fuscicornis (Stål).
-. Fore femora armed with a row of four short spines; second segment of antennæ not twice as long as third; head but slightly wider than long;
pronotum about three-sevenths wider than long ; humeral angles pale(Ariz., N. Mex.) arizonensis n . sp .
5. Costal margin strongly concavely sinuate before middle; head and pronotum densely tomentose and with numerous, long, semi-erect hairs; anterior lobe of pronotum strongly inflated dorsally-(Ariz., Mex., C. Amer.)
formosa (Distant).
-. Costal margin slightly concavely sinuate before the middle; head and pronotum sericeous, without long hairs; anterior lobe of pronotum commonly not strongly inflated dorsally. . 5.
6. Terminal segment of antennæ but little longer than basal; disk of anterior lobe of pronotum coarsely and closely punctate, the lateral margins viewed dorsally gently rounded; the transverse stricture between the lobes less obvious, the diameter of which is almost twice as wide as diameter of anterior margin- (Cuba, Fla.)..........intercisa n. sp.
-. Terminal segment of antennæ much longer than basal; disk of anterior lobe of pronotum sparsely, finely punctate, the lateral margins, viewed dorsally, strongly rounded; the transverse stricture between the lobes strongly impressed, the diameter of which is more nearly equal to diameter of anterior margin

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6. Head and pronotum more sparsely sericeous, shining; pronotum onefourth wider than long; antennæ twice as long as pronotum; relative lengths of antennal segments: I-.32, II-.64, III-.40, IV-. 60 mm . Larger species, 4.36 mm .-(Fla., Tex., Mex., W. Ind.).
minima (Guér.).
-. Head and pronotum more densely sericeous, dull; pronotum two-fifths wider than long ; antennæ plainly not twice as long as pronotum ; relative lengths of antennal segments: I-.28, II-.56, III-.36, IV -.52 mm . Smaller species, 3.64 mm .-(Tex., Mex., C. Amer., W. Ind.).
oblonga (Stål).
